CLAIMS

1. A compressor wheel assembly comprising a compressor wheel mounted to a rotating shaft, the shaft extending through a bore provided along the rotational axis of the wheel, wherein the bore has an inner diameter greater than the outer diameter of the portion of the shaft which passes through the compressor wheel, and a cylindrical sleeve is located concentrically around the shaft between the inner surface of the bore and the outer surface of the shaft to thereby support the shaft co-axially within the bore.

2. A compressor wheel assembly according to claim 1, wherein the axial length of the sleeve is less than the axial length of the bore through the compressor wheel.

3. A compressor wheel assembly according to claim 1, wherein the wheel is retained on the shaft by a nut which threads on to one end of the shaft to apply an axial clamping force to the wheel.

4. A compressor wheel assembly according to claim 3, wherein the nut bears directly or indirectly against a nose portion of the wheel to clamp the wheel against an abutment and therefore prevent axial movement of the wheel along the shaft.

5. A compressor wheel assembly according to claim 1, wherein said sleeve is press fitted within the bore of the compressor wheel prior to assembly of the compressor wheel on the shaft.

6. A compressor wheel for a turbocharger, which in use is mounted to one end of a turbocharger shaft, wherein the compressor wheel defines an internal axial through bore of a relatively large diameter, and is provided with a cylindrical sleeve of a relatively small inner diameter, selected to correspond to the diameter of the shaft, located co-axially within said bore.

7. A compressor wheel according to claim 6, wherein the axial length of the sleeve is shorter than the axial length of the through bore.

8. A turbocharger including a compressor wheel assembly comprising a compressor wheel mounted to a rotating shaft, the shaft extending through a bore provided along the rotational axis of the wheel, wherein the bore has an inner diameter greater than the outer diameter of the portion of the shaft which passes through the compressor wheel, and a cylindrical sleeve is located concentrically around the shaft between the inner surface of the bore and the outer surface of the shaft to thereby support the shaft co-axially within the bore.

9. A turbocharger including a compressor wheel for a turbocharger, which in use is mounted to one end of a turbocharger shaft, wherein the compressor wheel defines an internal axial through bore of a relatively large diameter, and is provided with a cylindrical sleeve of a relatively small inner diameter, selected to correspond to the diameter of the shaft, located co-axially within said bore.